

12th Quarterly Report

Date of Report: *December 21, 2016*

Contract Number: *DTPH5614H00007*

Prepared for: *Pipeline and Hazardous Materials Safety Administration*

Project Title: *Improving Leak Detection System Design, Redundancy and Accuracy*

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For quarterly period ending: *December 31, 2016*

Funds and Work Completed During this Quarterly Period

1) Summary of Activities

This is the final quarter of the Topic 14, Improving Leak Detection System Design Redundancy and Accuracy Project. Activities included the remaining items under Phases 8 and 9 which involved technology transfer, pilot testing/validation, preparing the Task 7 Final Report, and finalizing the project deliverables.

Participation in several pipeline industry conferences include:

- The Pipeline Safety Trust, October 20-21, 2016 – as part of the leak detection panel.
- The API Pipeline Conference, April 2017 – confirmed, in collaboration with the API, as part of a leak detection panel.
- The INGAA Annual Meeting, November 2017 – confirmed as part of a workshop on safety systems on natural gas pipelines.
- The AGA Measurement Meeting, October 2017 – confirmed as part of a workshop on system balancing on natural gas pipelines.

The following publications were sent both the abstract and draft paper:

- Pipeline & Gas Journal. This journal has accepted the draft for publication in the December 2017 Edition.
- Pipeline Technology Journal. This journal is still peer-reviewing the draft and a publication date is pending.
- Oil & Gas Journal. This journal has accepted the article; a publication date is pending.
- Journal of Pipeline Engineering. This journal is peer-reviewing the draft; a publication date is pending.

- Oil and Gas Innovation Magazine. This journal has accepted the draft for publication in the November 2017 Edition. Note that this is an on-line digital-only publication.

2) Technical Committee Meetings

Monthly technical committee meetings were discontinued for this last quarter.

3) Report Development

All Project Draft Reports have been finalized and uploaded to the DOT PHMSA website, including the Task 7, Final Report which includes a summary of the project including its timetable, results, and conclusions.

- DTPH5614H000007 - 0339-1404 LDS Task 7 Final Report.pdf

Table 1. List of Leak Detection Project Reports

1 – Summary Report	
2 – Liquids Base Report	
3 – Gas Base Report	
4 – Toolset (Spreadsheets)	
Appendices	
A	Task 1: Leak Detection Systems Design and Engineering Process <ul style="list-style-type: none"> • Part 1 – Process Overview • Part 2 – Examples and Templates
B	Task 2: Methodology for Leak Detection Systems Technology Selection and Engineering
C	Task 3: Systematic Predictions of Performance <ul style="list-style-type: none"> • Report Summary – Gas Pipelines • Task Report – Natural Gas Pipelines • Report Summary – Liquid Pipelines • Task Report – Liquid Pipelines
D	Task 4: Impact of Installation, Calibration and Testing <ul style="list-style-type: none"> • Task Report – Natural Gas Pipelines • Task Report – Liquid Pipelines
E	Task 5: Retrofit Issues <ul style="list-style-type: none"> • Task Report – Gas Pipelines • Task Report – Liquid Pipelines
F	Acronyms
G	References
Task 6: Technology Transfer	
Task 7: Final Report	

4) Plans for Future Activity

Additional opportunities to present the findings and results of the project at conferences will continue to be explored.

There has been interest and we are currently planning two briefings at Washington State and New York State regulators' regularly scheduled pipeline workshops.

There are also plans to update the PHMSA 2012 Leak Detection Study (DTPH56-11-D-000001) to account for new state-of-the-art leak detection technologies from the last four years.